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tce **TRUDELL**
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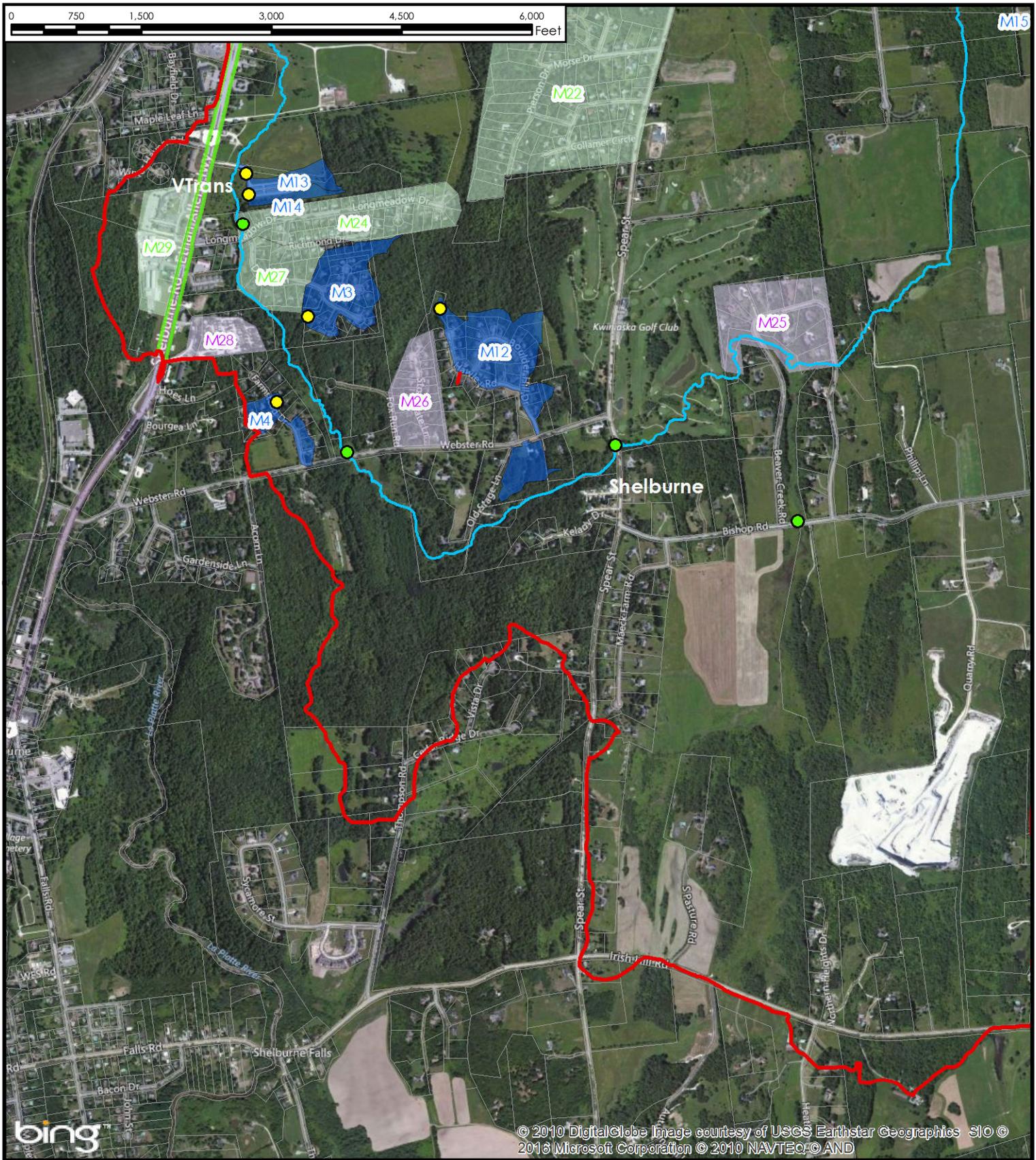


Munroe Brook Watershed Northern Section - FRP BMPs Shelburne & South Burlington, VT

Project: 14-042
Prepared By: ALD
09/14/2016
1 inch = 1500 feet

- Munroe Brook Watershed
- BMP
- Munroe Brook
- No Change to BMP
- Potential Retrofit BMP
- Potential New BMP
- Town Boundary
- Tax Parcel Boundary

Sources: Bing Aerial Photography (2012); Streams by ANR (2012); Munroe Brook Subwatersheds by ANR (Updated by TCE 2014); Drainage Areas by ANR (Updated by TCE 2014); M34 Boundaries by ANR; BMPs by Horsley Witten Group & TCE (2014). Disclaimer: The accuracy of information presented is determined by its sources. TCE is not responsible for any errors or omissions that may exist. Questions of on-the-ground location can be resolved by site inspections and/or surveys by a registered surveyor. This map is not a replacement for surveyed information or engineering studies.



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Munroe Brook Watershed Southern Section - FRP BMPs Shelburne & South Burlington, VT

Project: 14-042
Prepared By: ALD
09/14/2016
1 inch = 1500 feet

Sources: Bing Aerial Photography (2012); Streams by ANR (2012); Munroe Brook Subwatersheds by ANR (Updated by TCE 2014); Drainage Areas by ANR (Updated by TCE 2014); M34 Boundaries by ANR; BMPs by Horsley Witten Group & TCE (2014).
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	Munroe Brook Watershed
	BMP
	Munroe Brook
	No Change to BMP
	Retrofit BMP
	New BMP
	Shelburne
	South Burlington
	VTrans
	Town Boundary
	Tax Parcel Boundary

ID#: M01		
Name: Westview Estates		
Permit #: 1-0607 A		
Concept Description: Conversion of existing BMP to 2002 standard		
Notes/Feasibility: 12 in horizontal stand pipe. Head available dependent on lowering water surface level, existing pond has +/-1' of freeboard.		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: Shelburne	Project Candidate: Tier II	
Ownership:	New or Retrofit BMP: Retrofit	
Land Use 1: Residential	Proposed Retrofit Practice: Pond	
Land Use 2:	Non-Structural Controls: No	
Existing BMP on site? Yes	Maintenance Burden: Moderate	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: No Repair: No Other: N/A	Conflicts: Soils: No Access: No Land Use: No Utilities: No High WT: Unknown Wetlands: Yes Demo: No Other: N/A
Soils: C		
SIZING INFORMATION		
Drainage Area (ac): 29.90		
Impervious Area (ac): 4.01		
Practice Area Available(ft²): 20700		
Existing Head Available? 4-5' Est.		

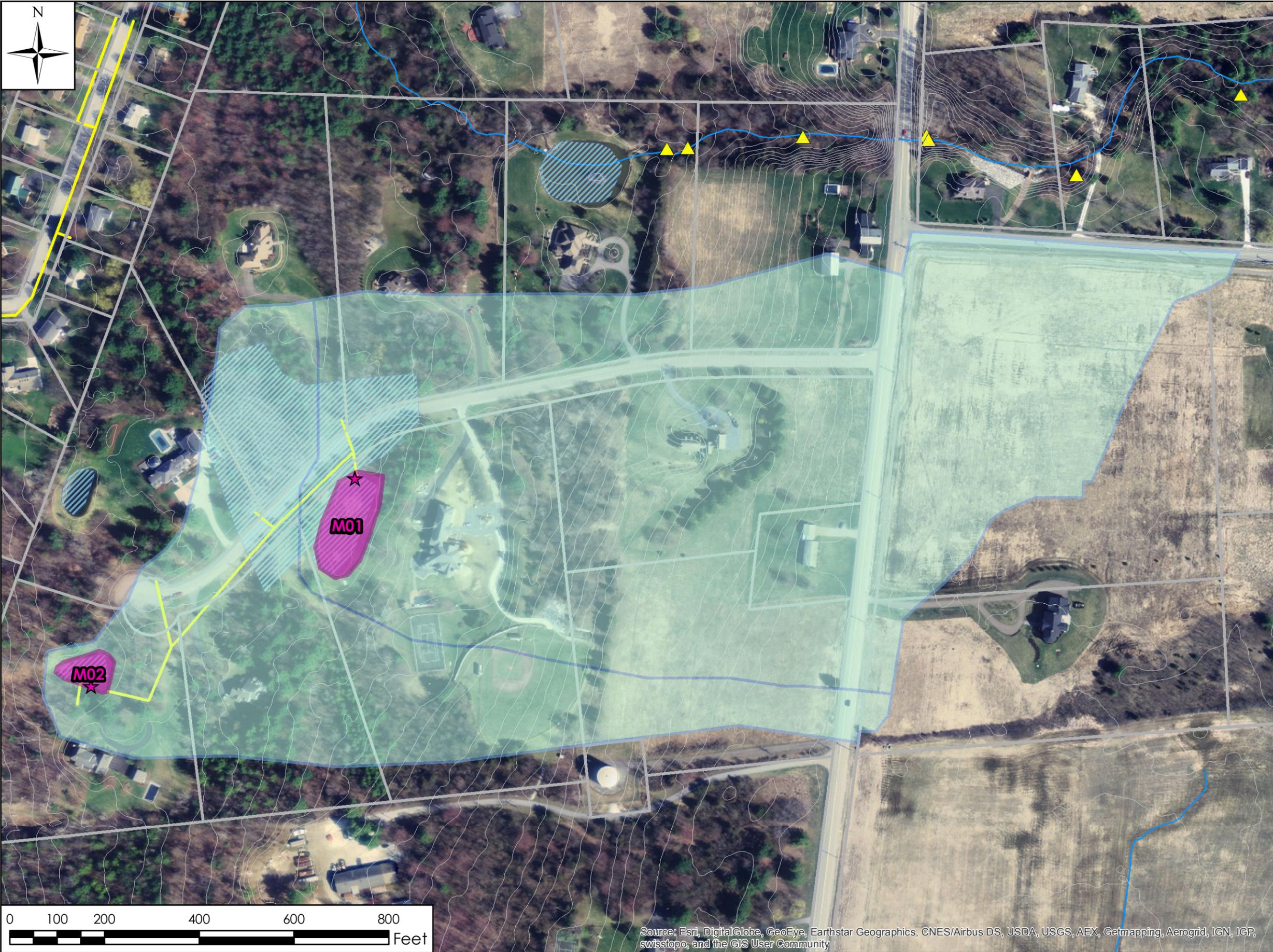
Date Assessed: 10/30/2014

Assessed by: AGM/LMJ

ID#: M02		
Name: Westview Estates	No Image Available	
Permit #: 1-0607 B		
Concept Description: Retrofit of existing BMP to 2002 standards		
Notes/Feasibility:		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: Shelburne	Project Candidate: Tier II	
Ownership:	New or Retrofit BMP: Retrofit	
Land Use 1: Residential	Proposed Retrofit Practice: Pond	
Land Use 2:	Non-Structural Controls: no	
Existing BMP on site? Yes	Maintenance Burden: Moderate	
Is site a hotspot? No	Benefits: Storage: yes Water Quality: yes Recharge: No Repair: no Other: N/A	Conflicts: Soils: No Access: no Land Use: no Utilities: no High WT: unknown Wetlands: No Demo: no Other: N/A
Soils: C		
SIZING INFORMATION		
Drainage Area (ac): 12.43		
Impervious Area (ac): 0.92		
Practice Area Available(ft ²): 6900		
Existing Head Available? N/A		

Date Assessed: 10/30/2014

Assessed by: AGM/LMJ



Project Location



Legend

- Munroe Brook Watershed
- Proposed BMP
- Practice Area
- BMP Drainage Area
- Contours (2')
- Tax Parcel Boundary
- Munroe Brook
- Outfalls
- Catch Basins
- Manholes
- Stormline
- VT Significant Wetland
- Stream

Notes

Sources: Bing Aerial Photography (2012); Streams by ANR (2012); Munroe Brook Subwatersheds by ANR (Updated by TCE 2014); Drainage Areas by ANR (Updated by TCE 2014); MS4 Boundaries by ANR; BMPs by Horsley Witten Group & TCE (2014).
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**M1 & M2 - Westview Est
Shelburne, VT**

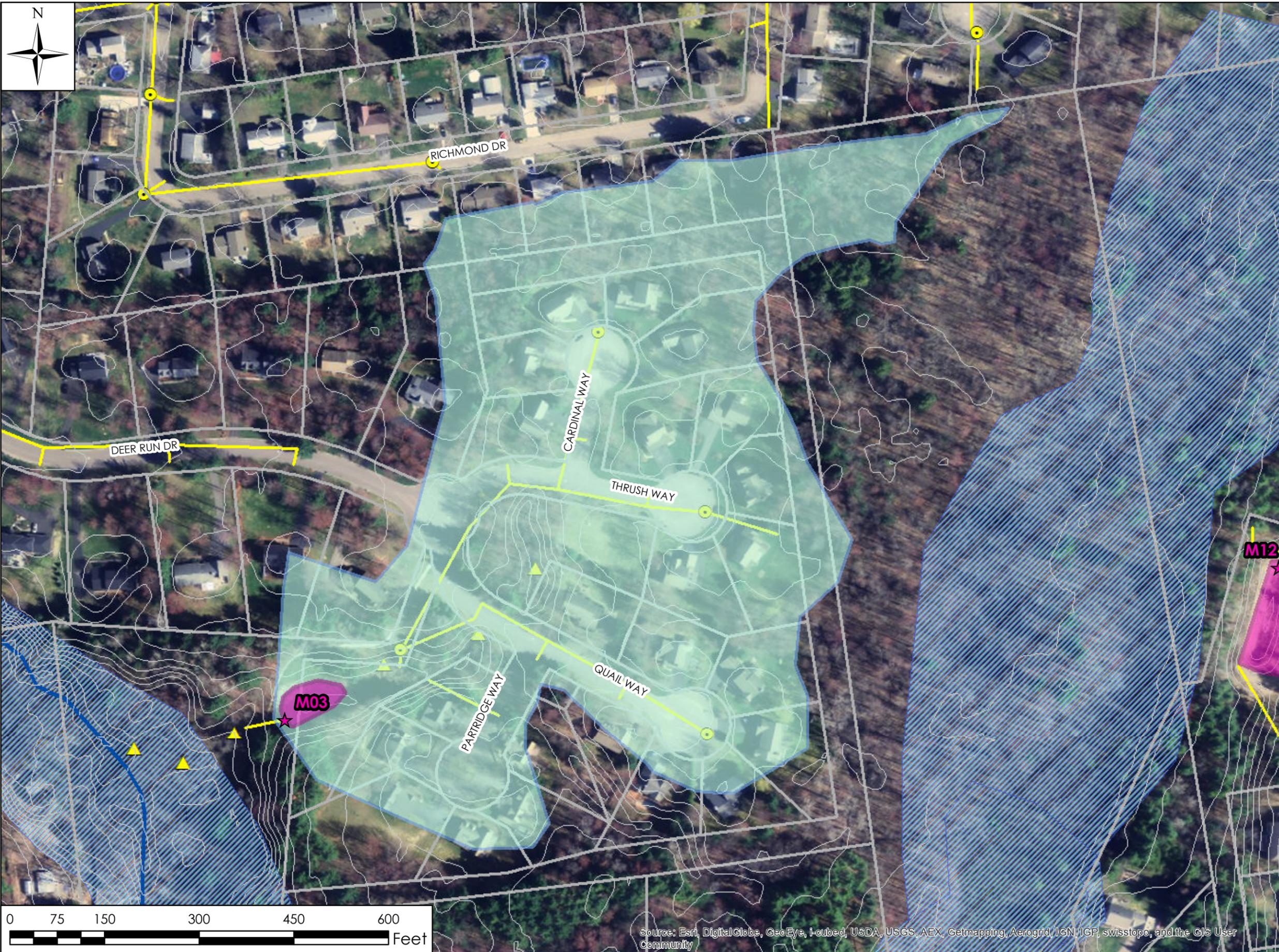
Project: 14-042
Prepared By: ALD
09/14/2016
1 inch = 200 feet



ID#: M03		
Name: Deer Run		
Permit #: 1-0732 B		
Concept Description: Expand existing BMP		
Notes/Feasibility: Outlet clogged - unable to verify low flow orifices.		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: Shelburne	Project Candidate: Tier I	
Ownership:	New or Retrofit BMP: Retrofit	
Land Use 1: Residential	Proposed Retrofit Practice: Pond	
Land Use 2:	Non-Structural Controls: No	
Existing BMP on site? Yes	Maintenance Burden: Moderate	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: No Repair: Yes Other: N/A	Conflicts: Soils: No Access: Yes Land Use: No Utilities: No High WT: Unknown Wetlands: No Demo: No Other: N/A
Soils: C		
SIZING INFORMATION		
Drainage Area (ac): 15.40		
Impervious Area (ac): 3.23		
Practice Area Available(ft ²): 4600		
Existing Head Available? 2-3' Est.		

Date Assessed: 10/30/2014

Assessed by: AGM/LMJ



- Legend**
- Munroe Brook Watershed
 - ★ Proposed BMP
 - Practice Area
 - BMP Drainage Area
 - Contours (2')
 - Tax Parcel Boundary
 - Munroe Brook
 - ▲ Outfalls
 - Catch Basins
 - Manholes
 - Stormline
 - VT Significant Wetland
 - Stream

Notes

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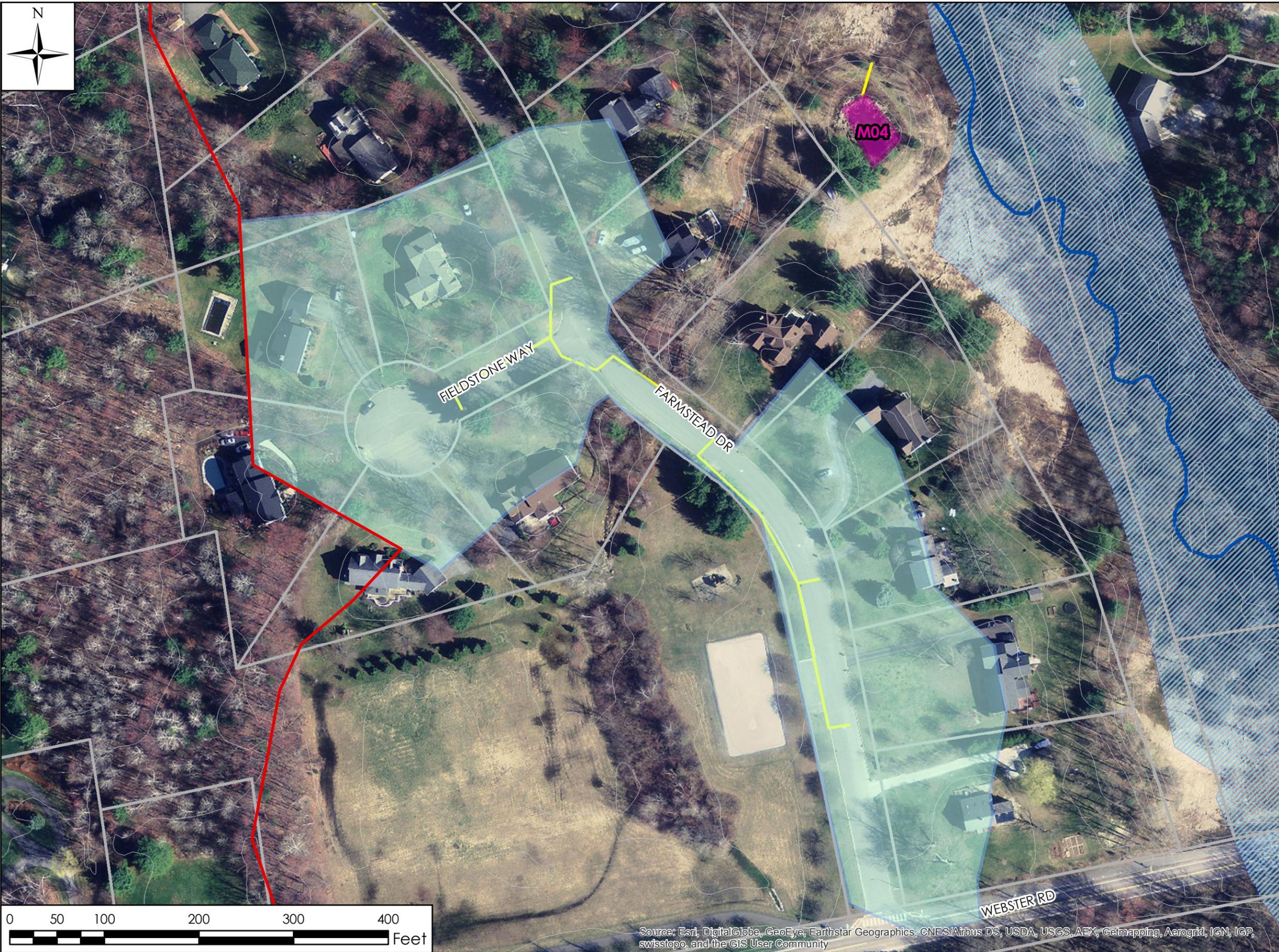
M03 - Deer Run
Shelburne, VT
Project: 14-042
Prepared By: LMJ
12/03/2014
1 inch = 150 feet

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

ID#: M04		
Name: Farmstead Drive		
Permit #: 1-0732 C		
Concept Description: Verify installed as designed		
Notes/Feasibility: No retrofit required provided that system is installed per assumed design. To be verified.		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: Shelburne	Project Candidate: Tier II	
Ownership:	New or Retrofit BMP: Retrofit	
Land Use 1: Residential	Proposed Retrofit Practice: Pond	
Land Use 2:	Non-Structural Controls: no	
Existing BMP on site? Yes	Maintenance Burden: Moderate	
Is site a hotspot? No	Benefits: Storage: yes Water Quality: yes Recharge: No Repair: no Other: N/A	Conflicts: Soils: No Access: no Land Use: no Utilities: no High WT: unknown Wetlands: No Demo: no Other: N/A
Soils: C		
SIZING INFORMATION		
Drainage Area (ac): 5.60		
Impervious Area (ac): 1.83		
Practice Area Available(ft ²): 2200		
Existing Head Available? 3' Est.		

Date Assessed: 10/29/2014

Assessed by: AGM/LMJ



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Project Location



Legend

- Munroe Brook Watershed
- Practice Area
- BMP Drainage Area
- Contours (2')
- Tax Parcel Boundary
- Munroe Brook
- Outfalls
- Catch Basins
- Manholes
- Stormline
- VT Significant Wetland
- Stream

Notes

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**M04 - Farmstead Drive
Shelburne, VT**

Project: 14-042
Prepared By: ALD
09/14/2016
1 inch = 100 feet

ID#: M05		
Name: Pinnacle at Spear		
Permit #: 1-1155 P2		
Concept Description: Retrofit of existing BMP to 2002 standards		
Notes/Feasibility:		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: South Burlington	Project Candidate: Tier I	
Ownership:	New or Retrofit BMP: Retrofit	
Land Use 1: Residential	Proposed Retrofit Practice: Pond	
Land Use 2:	Non-Structural Controls: No	
Existing BMP on site? Yes	Maintenance Burden: Minimal change	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: No Repair: No Other: N/A	Conflicts: Soils: No Access: Yes Land Use: No Utilities: No High WT: Yes Wetlands: No Demo: No Other: N/A
Soils: D		
SIZING INFORMATION		
Drainage Area (ac): 10.20		
Impervious Area (ac): 3.86		
Practice Area Available(ft ²): 17400		
Existing Head Available? N/A		

Date Assessed: 10/30/2014

Assessed by: AGM/LMJ

ID#: M06		
Name: Pinnacle at Spear		
Permit #: 1-1155 P5		
Concept Description: Retrofit of existing BMP to 2002 standards		
Notes/Feasibility:		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: South Burlington	Project Candidate: Tier I	
Ownership:	New or Retrofit BMP: Retrofit	
Land Use 1: Residential	Proposed Retrofit Practice: Pond	
Land Use 2:	Non-Structural Controls: No	
Existing BMP on site? Yes	Maintenance Burden: Minimal change	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: No Repair: No Other: N/A	Conflicts: Soils: No Access: Yes Land Use: No Utilities: No High WT: Yes Wetlands: No Demo: No Other: N/A
Soils: D		
SIZING INFORMATION		
Drainage Area (ac): 1.76		
Impervious Area (ac): 0.06		
Practice Area Available(ft ²): 11700		
Existing Head Available? N/A		

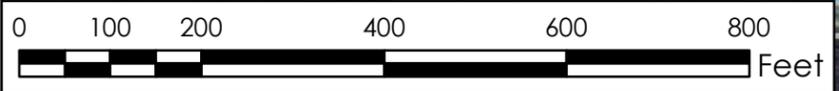
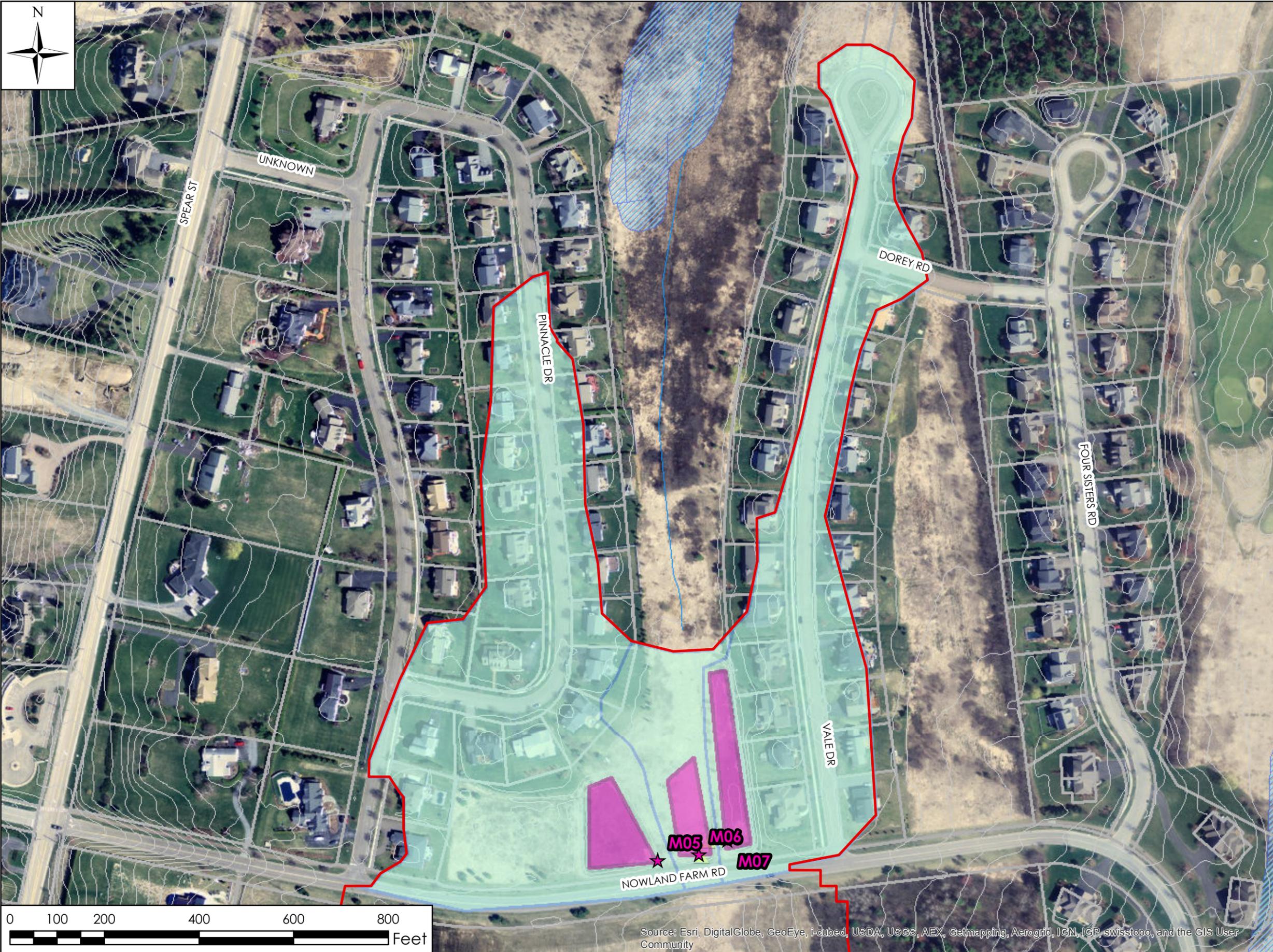
Date Assessed: 10/30/2014

Assessed by: AGM/LMJ

ID#: M07		
Name: Pinnacle at Spear		
Permit #: 1-1155 P3		
Concept Description: Retrofit of existing BMP to 2002 standards		
Notes/Feasibility:		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: South Burlington	Project Candidate: Tier I	
Ownership:	New or Retrofit BMP: Retrofit	
Land Use 1: Residential	Proposed Retrofit Practice: Pond	
Land Use 2:	Non-Structural Controls: No	
Existing BMP on site? Yes	Maintenance Burden: Minimal change	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: No Repair: No Other: N/A	Conflicts: Soils: No Access: Yes Land Use: No Utilities: No High WT: Yes Wetlands: No Demo: No Other: N/A
Soils: D		
SIZING INFORMATION		
Drainage Area (ac): 7.60		
Impervious Area (ac): 3.84		
Practice Area Available(ft ²): 16200		
Existing Head Available? N/A		

Date Assessed: 10/30/2014

Assessed by: AGM/LMJ



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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- Legend**
- Munroe Brook Watershed
 - Proposed BMP
 - Practice Area
 - BMP Drainage Area
 - Contours (2')
 - Tax Parcel Boundary
 - Munroe Brook
 - Outfalls
 - Catch Basins
 - Manholes
 - Stormline
 - VT Significant Wetland
 - Stream

Notes

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M05, M06, M07
Pinnacle at Spear
South Burlington, VT
Project: 14-042
Prepared By: LMJ
12/03/2014
1 inch = 200 feet

ID#: M08		
Name: Route 7		
Permit #: 1-1291		
Concept Description: Retrofit of existing BMP to provide additional control as feasible.		
Notes/Feasibility: The drainage area for this practice is significantly larger than original models indicated, may limit feasibility for retrofit.		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: Shelburne/VTrans	Project Candidate: Tier I	
Ownership:	New or Retrofit BMP: Retrofit	
Land Use 1: Transportation	Proposed Retrofit Practice: Pond	
Land Use 2:	Non-Structural Controls: no	
Existing BMP on site? Yes	Maintenance Burden: Moderate	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: No Repair: No Other: N/A	Conflicts: Soils: No Access: No Land Use: No Utilities: No High WT: Unknown Wetlands: No Demo: No Other: N/A
Soils: D		
SIZING INFORMATION		
Drainage Area (ac): 115.20		
Impervious Area (ac): 33.00		
Practice Area Available(ft ²): 7900		
Existing Head Available? N/A		

Date Assessed: 10/29/2014

Assessed by: AGM/LMJ



Project Location



Legend

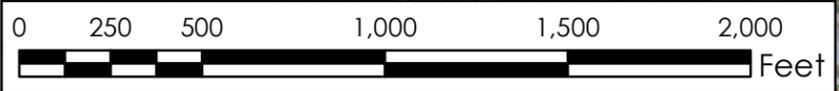
- Munroe Brook Watershed
- Proposed BMP
- Practice Area
- BMP Drainage Area
- Contours (2')
- Tax Parcel Boundary
- Munroe Brook
- Outfalls
- Catch Basins
- Manholes
- Stormline
- VT Significant Wetland
- Stream

Notes

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**M08 - Route 7
Shelburne, VT**

Project: 14-042
Prepared By: LMJ
12/03/2014
1 inch = 500 feet

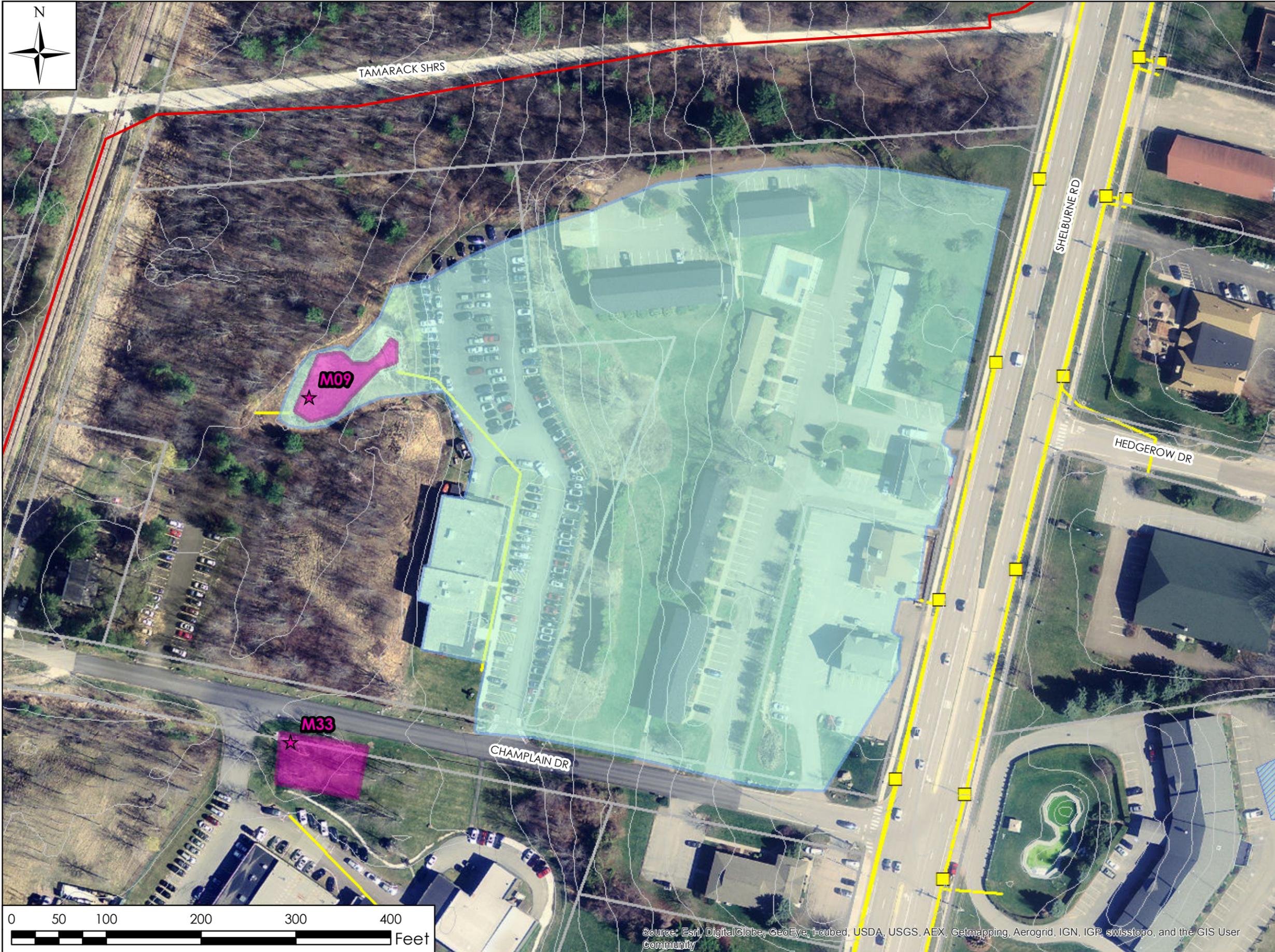


Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

ID#: M09		
Name: Automaster - MINI Dealership		
Permit #: 1-1390		
Concept Description: Expansion of existing BMP		
Notes/Feasibility: There is potential to redirect significant portions of Rt. 7 runoff to this practice if space allows.		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: Shelburne/VTrans	Project Candidate: Tier I	
Ownership:	New or Retrofit BMP: Retrofit	
Land Use 1: Commercial	Proposed Retrofit Practice: Pond	
Land Use 2: Transportation	Non-Structural Controls: No	
Existing BMP on site? Yes	Maintenance Burden: Moderate	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: No Repair: Yes Other: N/A	Conflicts: Soils: No Access: Yes Land Use: No Utilities: No High WT: No Wetlands: No Demo: No Other: N/A
Soils: D		
SIZING INFORMATION		
Drainage Area (ac): 7.44		
Impervious Area (ac): 4.04		
Practice Area Available(ft²): 4000		
Existing Head Available? >10'		

Date Assessed: 10/30/2014

Assessed by: AGM/LMJ



- Legend**
- Munroe Brook Watershed
 - Proposed BMP
 - Practice Area
 - BMP Drainage Area
 - Contours (2')
 - Tax Parcel Boundary
 - Munroe Brook
 - Outfalls
 - Catch Basins
 - Manholes
 - Stormline
 - VT Significant Wetland
 - Stream

Notes

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**M09 - MINI Dealership
Shelburne, VT**

Project: 14-042
Prepared By: LMJ
12/03/2014
1 inch = 100 feet

ID#: M10		
Name: Shelburne Meadows Business Park		
Permit #: 1-1400 A		
Concept Description: Retrofit of existing BMP to 2002 standards		
Notes/Feasibility: 2 3" orifices at 2 ft 24 by 24 in horizontal grate at 4 ft		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: Shelburne	Project Candidate: Tier II	
Ownership:	New or Retrofit BMP: Retrofit	
Land Use 1: Commercial	Proposed Retrofit Practice: Pond	
Land Use 2:	Non-Structural Controls: No	
Existing BMP on site? Yes	Maintenance Burden: Minimal change	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: No Repair: No Other: N/A	Conflicts: Soils: No Access: No Land Use: No Utilities: no High WT: Yes Wetlands: Yes Demo: Other: N/A
Soils: C		
SIZING INFORMATION		
Drainage Area (ac): 1.80		
Impervious Area (ac): 0.74		
Practice Area Available(ft ²): 2100		
Existing Head Available? 2' Est.		

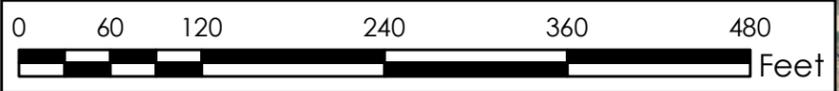
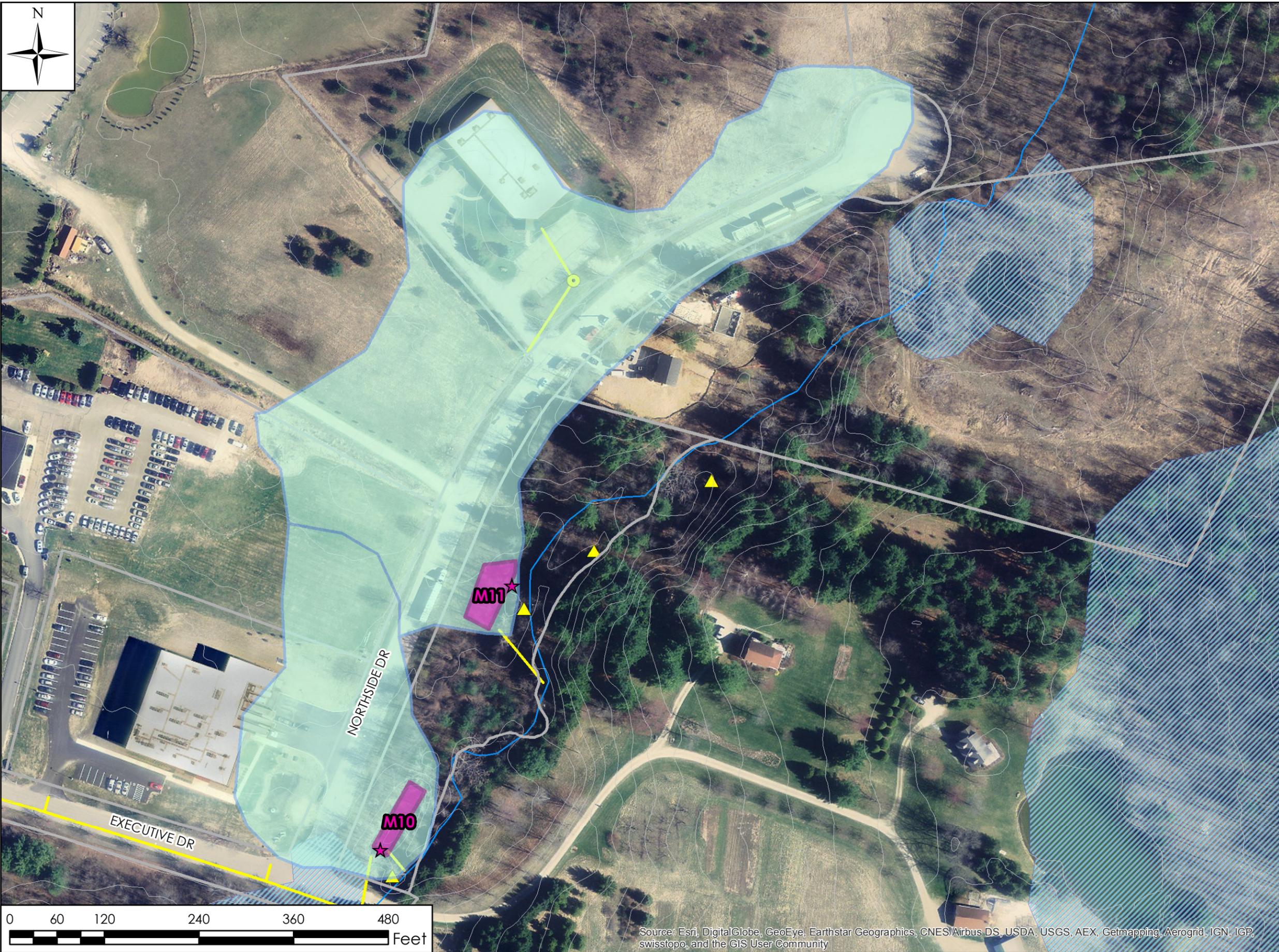
Date Assessed: 10/30/2014

Assessed by: AGM/LMJ

ID#: M11		
Name: Shelburne Meadows Business Park	No Image Available	
Permit #: 1-1400 B		
Concept Description: Retrofit of existing BMP to 2002 standards		
Notes/Feasibility: 24 in pipe with 15 in end cap		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: Shelburne	Project Candidate: Tier II	
Ownership:	New or Retrofit BMP: Retrofit	
Land Use 1: Commercial	Proposed Retrofit Practice: Pond	
Land Use 2:	Non-Structural Controls: No	
Existing BMP on site? Yes	Maintenance Burden: Minimal change	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: Yes Repair: No Other: N/A	Conflicts: Soils: No Access: No Land Use: Utilities: no High WT: yes Wetlands: No Demo: No Other: N/A
Soils: B		
SIZING INFOMATION		
Drainage Area (ac): 5.30		
Impervious Area (ac): 1.74		
Practice Area Available(ft²): 3000		
Existing Head Available? 2' Est.		

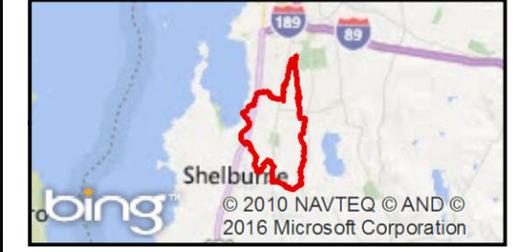
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Assessed by: AGM/LMJ



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Project Location



Legend

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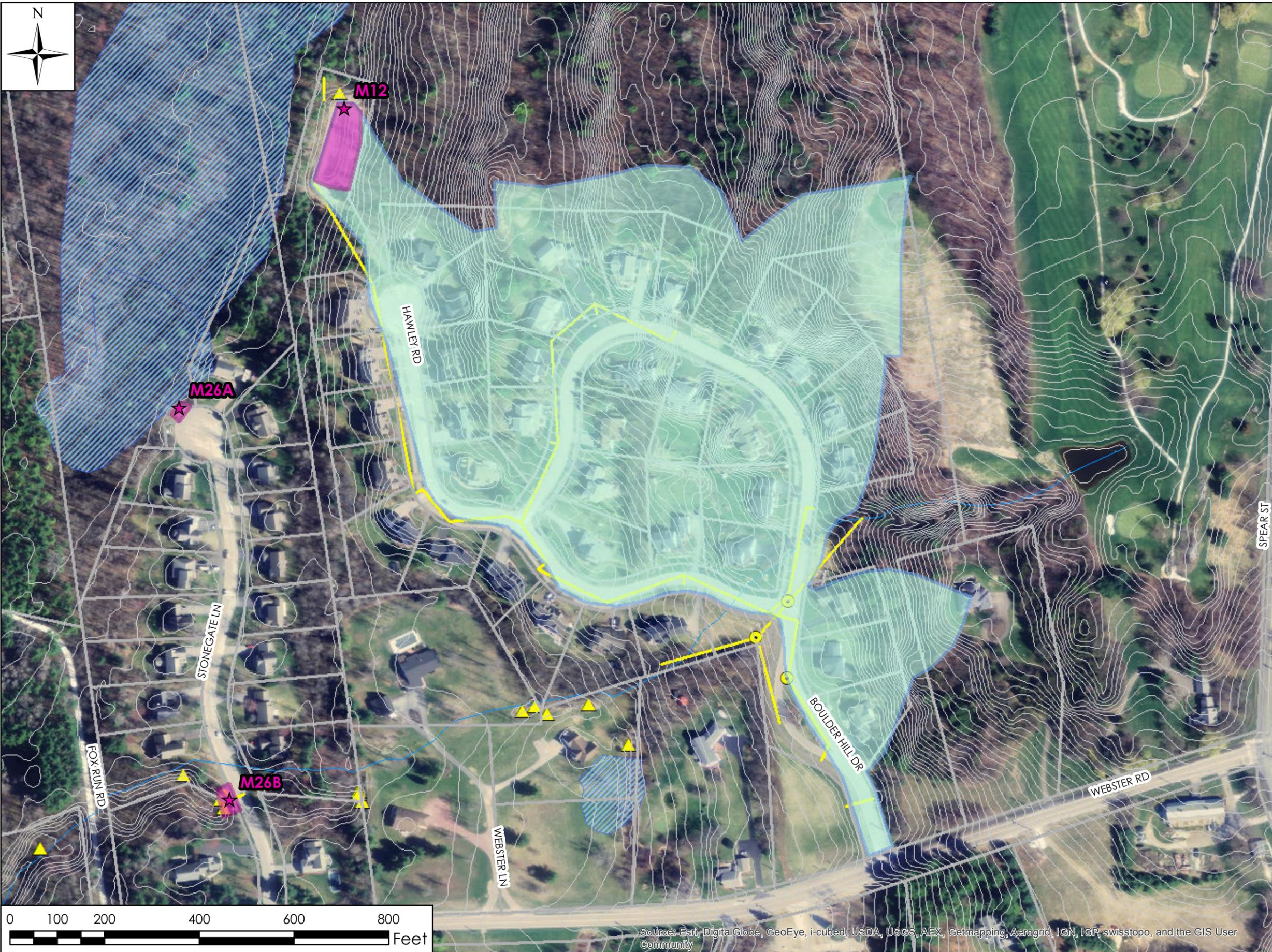
**M10 & M11
Shelburne Meadows
Shelburne, VT**

Project: 14-042
Prepared By: ALD
09/14/2016
1 inch = 120 feet

ID#: M12		
Name: Boulder Hill Drive	No Image Available	
Permit #: 1-1534		
Concept Description: Retrofit of existing BMP to 2002 standards		
Notes/Feasibility: Existing practice has significant room for expansion.		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: Shelburne	Project Candidate: Tier I	
Ownership:	New or Retrofit BMP: Retrofit	
Land Use 1: Residential	Proposed Retrofit Practice: Pond	
Land Use 2:	Non-Structural Controls: No	
Existing BMP on site? Yes	Maintenance Burden: Moderate	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: Yes Repair: No Other: N/A	Conflicts: Soils: No Access: Yes Land Use: No Utilities: No High WT: Unknown Wetlands: No Demo: No Other: N/A
Soils: B		
SIZING INFORMATION		
Drainage Area (ac): 22.30		
Impervious Area (ac): 5.36		
Practice Area Available(ft ²): 11700		
Existing Head Available? N/A		

Date Assessed: 10/30/2014

Assessed by: AGM/LMJ



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**M12 - Boulder Hill Drive
Shelburne, VT**

Project: 14-042
Prepared By: LMJ
12/03/2014
1 inch = 200 feet

ID#: M16		
Name: South Pointe		
Permit #: 3443-INDS M1		
Concept Description: Retrofit Outlet Structure		
Notes/Feasibility: While designed to 2002 standards, there was benefit to retrofitting the outlet structure		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: South Burlington	Project Candidate: Tier III	
Ownership:	New or Retrofit BMP: Retrofit	
Land Use 1: Residential	Proposed Retrofit Practice:	
Land Use 2:	Non-Structural Controls: No	
Existing BMP on site? Yes	Maintenance Burden:	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: No Repair: No Other: N/A	Conflicts: Soils: No Access: No Land Use: No Utilities: No High WT: Yes Wetlands: Yes Demo: No Other: N/A
Soils: D		
SIZING INFORMATION		
Drainage Area (ac): 4.98		
Impervious Area (ac): 2.10		
Practice Area Available(ft ²): 3900		
Existing Head Available? N/A		

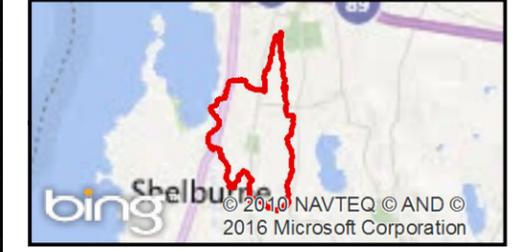
Date Assessed: 10/30/2014

Assessed by: AGM/LMJ



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Project Location



Legend

- Munroe Brook Watershed
- Proposed BMP
- Practice Area
- BMP Drainage Area
- Contours (2')
- Tax Parcel Boundary
- Munroe Brook
- Outfalls
- Catch Basins
- Manholes
- Stormline
- VT Significant Wetland
- Stream

Notes

Sources: Bing Aerial Photography (2012); Streams by ANR (2012); Munroe Brook Subwatersheds by ANR (Updated by TCE 2014); Drainage Areas by ANR (Updated by TCE 2014); MS4 Boundaries by ANR; BMPs by Horsley Witten Group & TCE (2014).
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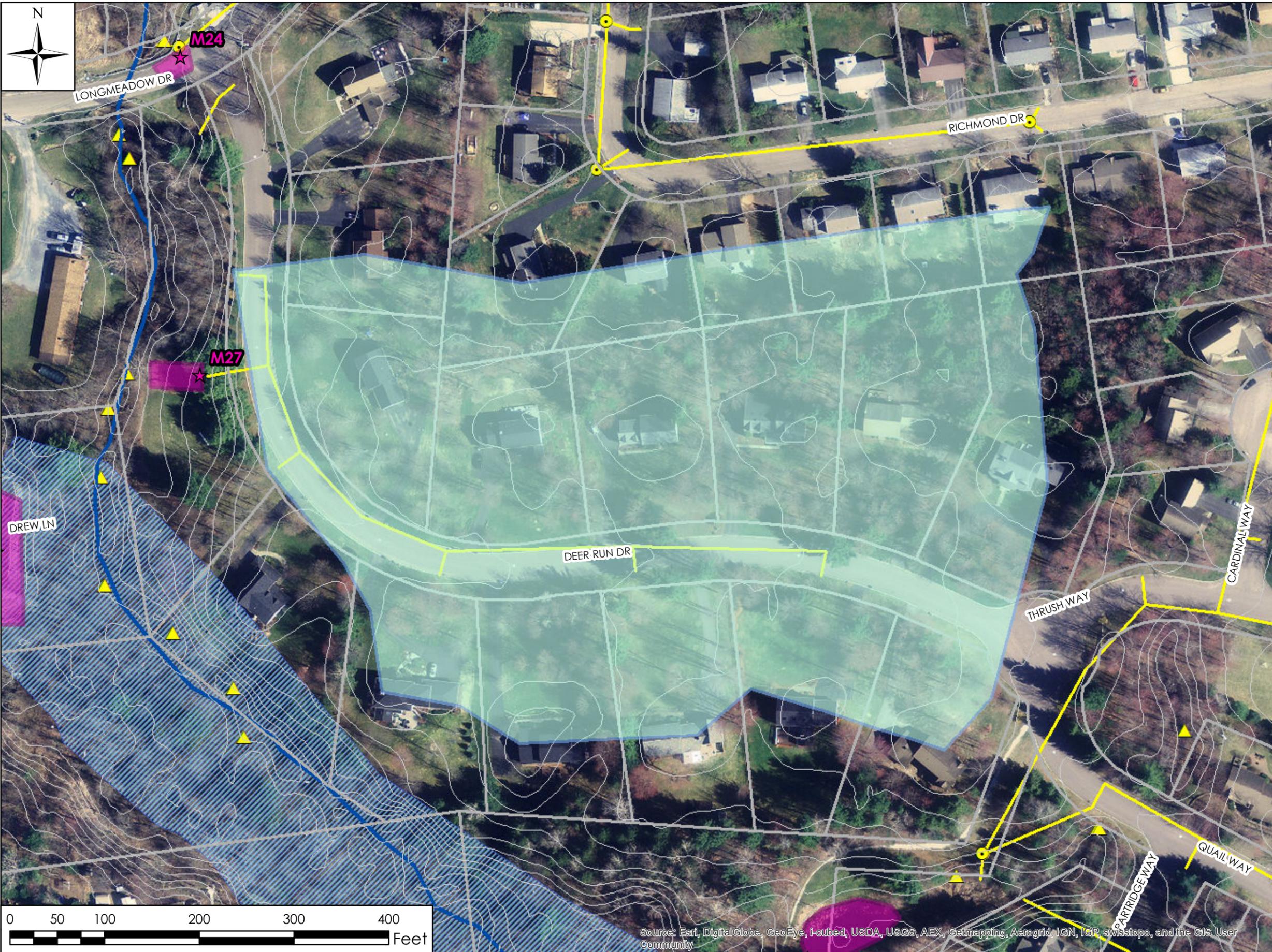
**M16 - South Pointe
Shelburne, VT**

Project: 14-042
Prepared By: ALD
09/23/2016
1 inch = 100 feet

ID#: M27		
Name: Deer Run		
Permit #: 1-0732		
Concept Description: Build pond in location where originally specified		
Notes/Feasibility: Proposed BMP at location indicated in permit. Existing recreation area must be demolished.		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: Shelburne	Project Candidate: Tier I	
Ownership:	New or Retrofit BMP: New	
Land Use 1: Residential	Proposed Retrofit Practice: Pond	
Land Use 2:	Non-Structural Controls: N/A	
Existing BMP on site? No	Maintenance Burden: Moderate	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: No Repair: No Other: N/A	Conflicts: Soils: No Access: Yes Land Use: No Utilities: No High WT: Yes Wetlands: Yes Demo: No Other: N/A
Soils: C		
SIZING INFORMATION		
Drainage Area (ac): 8.70		
Impervious Area (ac): 1.65		
Practice Area Available(ft ²): 1500		
Existing Head Available? 2-3' Est.		

Date Assessed: 10/29/2014

Assessed by: AGM/LMJ



- Legend**
- Munroe Brook Watershed
 - ★ Proposed BMP
 - Practice Area
 - BMP Drainage Area
 - Contours (2')
 - Tax Parcel Boundary
 - Munroe Brook
 - ▲ Outfalls
 - Catch Basins
 - Manholes
 - Stormline
 - VT Significant Wetland
 - Stream

Notes

Sources: Bing Aerial Photography (2012); Streams by ANR (2012); Munroe Brook Subwatersheds by ANR (Updated by TCE 2014); Drainage Areas by ANR (Updated by TCE 2014); MS4 Boundaries by ANR; BMPs by Horsley Witten Group & TCE (2014).

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**M27 - Deer Run
Shelburne, VT**

Project: 14-042
Prepared By: LMJ
12/03/2014
1 inch = 100 feet

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, Swisstopo, and the GIS User Community

ID#: M28A		
Name: Shelburne Camping Area	No Image Available	
Permit #: N/A		
Concept Description: Two BMPs located at local low points to capture existing unpermitted impervious surface		
Notes/Feasibility: Site is relatively flat, proposed BMP located at local low point, offers little ability for treatment of Rt. 7 runoff.		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: Shelburne	Project Candidate: Tier I	
Ownership:	New or Retrofit BMP: New	
Land Use 1: Commercial	Proposed Retrofit Practice: Pond	
Land Use 2:	Non-Structural Controls: N/A	
Existing BMP on site? No	Maintenance Burden: Moderate	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: No Repair: No Other: N/A	Conflicts: Soils: No Access: Yes Land Use: No Utilities: No High WT: Yes Wetlands: Yes Demo: No Other: N/A
Soils: C		
SIZING INFORMATION		
Drainage Area (ac): 4.50		
Impervious Area (ac): 1.32		
Practice Area Available(ft ²): 1300		
Existing Head Available? N/A		

Date Assessed: 10/29/2014

Assessed by: AGM/LMJ

ID#: M28B		
Name: Shelburne Camping Area	No Image Available	
Permit #: N/A		
Concept Description: Two BMPs located at local low points to capture existing unpermitted impervious surface		
Notes/Feasibility: Site is relatively flat, proposed BMP located at local low point, offers little ability for treatment of Rt. 7 runoff.		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: Shelburne	Project Candidate: Tier I	
Ownership:	New or Retrofit BMP: New	
Land Use 1: Commercial	Proposed Retrofit Practice: Pond	
Land Use 2:	Non-Structural Controls: N/A	
Existing BMP on site? No	Maintenance Burden: Moderate	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: Yes Repair: No Other: N/A	Conflicts: Soils: No Access: Yes Land Use: No Utilities: No High WT: Unknown Wetlands: No Demo: No Other: N/A
Soils: B		
SIZING INFORMATION		
Drainage Area (ac): 5.30		
Impervious Area (ac): 2.27		
Practice Area Available(ft²): 7500		
Existing Head Available? N/A		

Date Assessed: 10/29/2014

Assessed by: AGM/LMJ



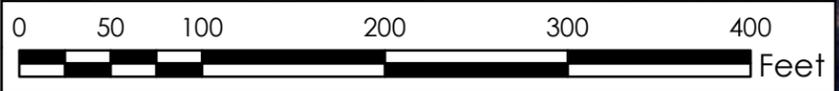
- Legend**
- Munroe Brook Watershed
 - ★ Proposed BMP
 - Practice Area
 - BMP Drainage Area
 - Contours (2')
 - Tax Parcel Boundary
 - Munroe Brook
 - ▲ Outfalls
 - Catch Basins
 - Manholes
 - Stormline
 - VT Significant Wetland
 - Stream

Notes

Sources: Bing Aerial Photography (2012); Streams by ANR (2012); Munroe Brook Subwatersheds by ANR (Updated by TCE 2014); Drainage Areas by ANR (Updated by TCE 2014); MS4 Boundaries by ANR; BMPs by Horsley Witten Group & TCE (2014).

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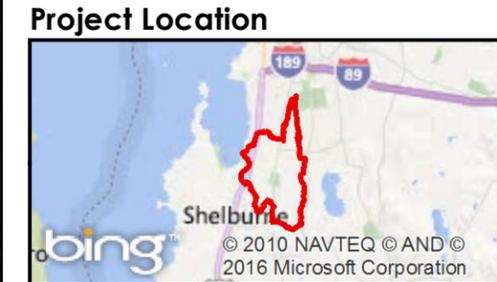
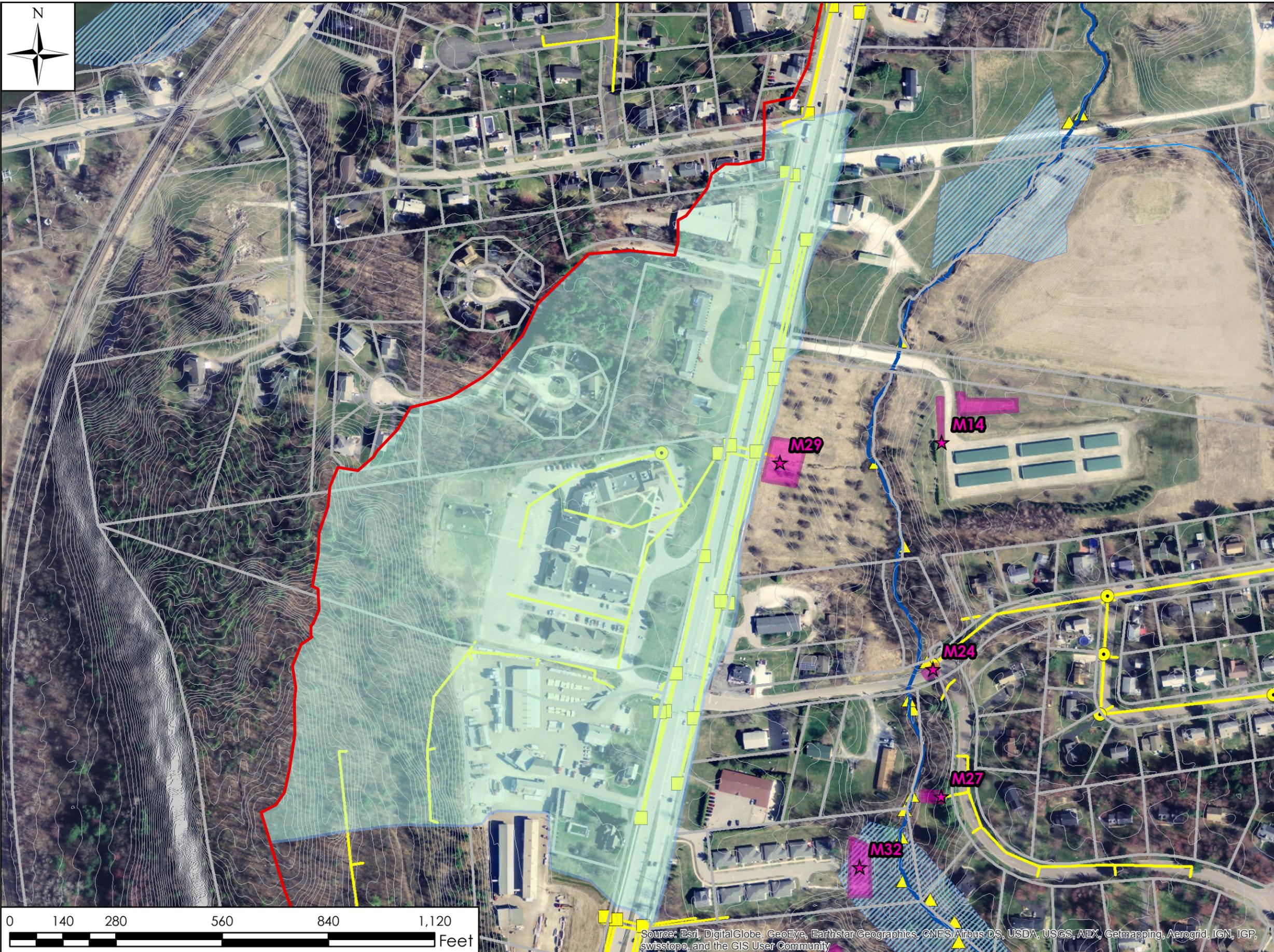
M28 A & M28 B
Shelburne Camping Area
Shelburne, VT
Project: 14-042
Prepared By: LMJ
12/03/2014
1 inch = 100 feet



ID#: M29 Option 1		
Name: Shelburne Commons/Rice Lumber		
Permit #: N/A		
Concept Description: Construct new wet pond to capture existing impervious from unpermitted site as well as Route 7		
Notes/Feasibility: Good candidate for collecting Rt. 7 runoff, significant head available.		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: Shelburne/VTrans	Project Candidate: Tier I	
Ownership:	New or Retrofit BMP: New	
Land Use 1: Commercial	Proposed Retrofit Practice: Pond	
Land Use 2: Transportation	Non-Structural Controls: N/A	
Existing BMP on site? No	Maintenance Burden: Moderate	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: No Repair: No Other: N/A	Conflicts: Soils: No Access: Yes Land Use: Utilities: Yes High WT: Yes Wetlands: Yes Demo: Yes Other: N/A
Soils: D		
SIZING INFORMATION		
Drainage Area (ac): 41.10		
Impervious Area (ac): 16.40		
Practice Area Available(ft²): 10400		
Existing Head Available? N/A		

Date Assessed: 10/29/2014

Assessed by: AGM/LMJ



- Legend**
- Munroe Brook Watershed
 - ★ Proposed BMP
 - Practice Area
 - BMP Drainage Area
 - Contours (2')
 - Tax Parcel Boundary
 - Munroe Brook
 - ▲ Outfalls
 - Catch Basins
 - Manholes
 - Stormline
 - VT Significant Wetland
 - Stream

Notes

Sources: Bing Aerial Photography (2012); Streams by ANR (2012); Munroe Brook Subwatersheds by ANR (Updated by TCE 2014); Drainage Areas by ANR (Updated by TCE 2014); MS4 Boundaries by ANR; BMPs by Horsley Witten Group & TCE (2014).
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**M29 - Shleburne Commons
Shelburne, VT**
Project: 14-042
Prepared By: ALD
09/23/2016
1 inch = 250 feet

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

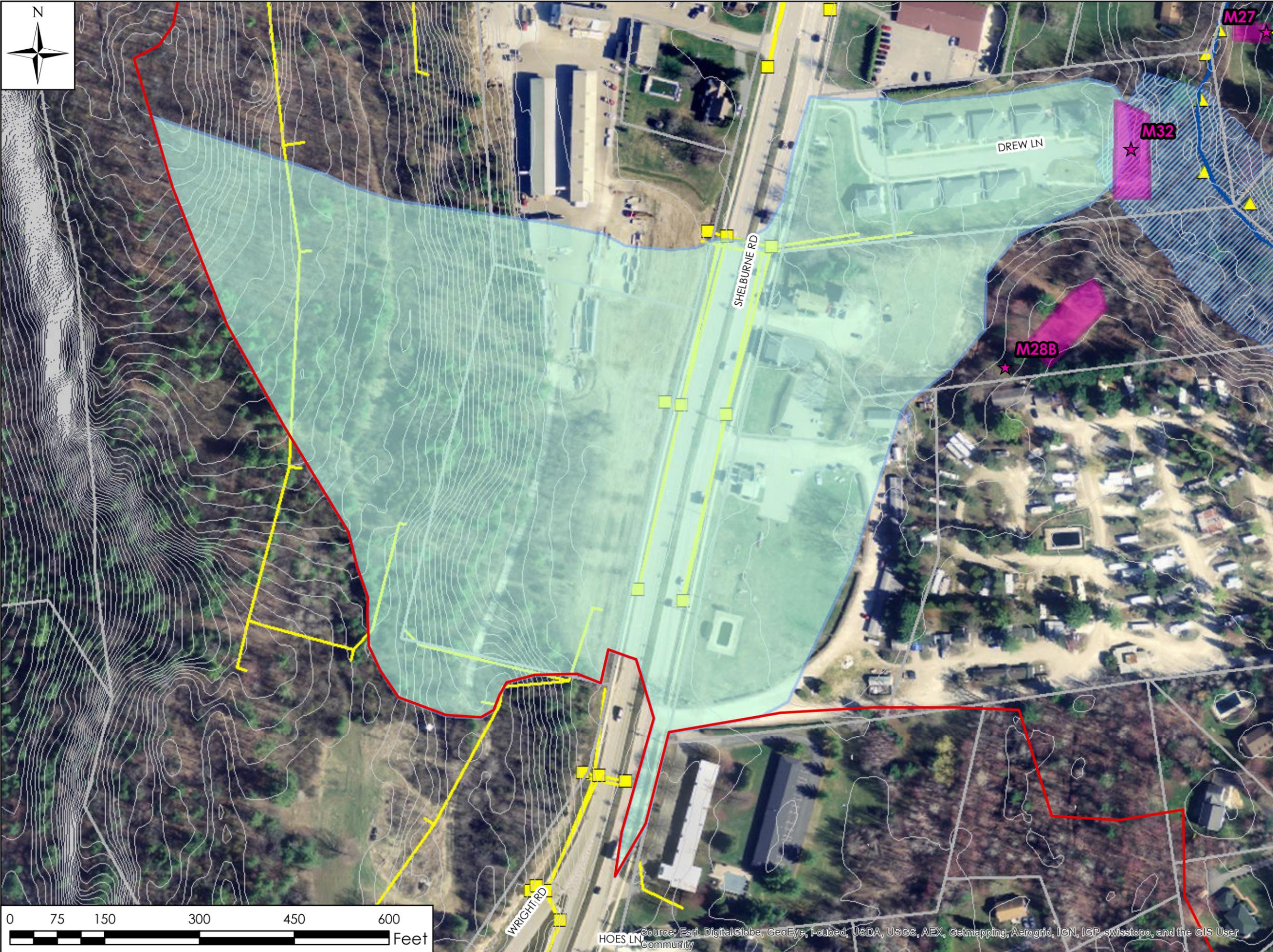
ID#: M32		
Name: Drew Lane		
Permit #: N/A		
Concept Description: Retrofit of existing pond to 2002 standards		
Notes/Feasibility: A pond exists in this development that does not appear to have a permit associated with it. Portion of Rt. 7 runoff runs past practice, with relatively easy ability to redirect to the practice.		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: Shelburne/VTrans	Project Candidate: Tier I	
Ownership:	New or Retrofit BMP: Retrofit	
Land Use 1: Residential	Proposed Retrofit Practice: Pond	
Land Use 2: Transportation	Non-Structural Controls: N/A	
Existing BMP on site? Yes	Maintenance Burden: Moderate	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: Yes Repair: No Other: N/A	Conflicts: Soils: No Access: Yes Land Use: No Utilities: No High WT: Unknown Wetlands: No Demo: No Other: N/A
Soils: B		
SIZING INFORMATION		
Drainage Area (ac): 19.70		
Impervious Area (ac): 4.40		
Practice Area Available(ft ²): 7700		
Existing Head Available? >5'		

Date Assessed: 10/29/2014

Assessed by: AGM/LMJ



Project Location



Legend

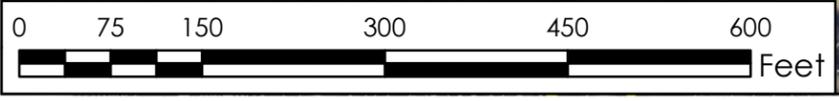
- Munroe Brook Watershed
- Proposed BMP
- Practice Area
- BMP Drainage Area
- Contours (2')
- Tax Parcel Boundary
- Munroe Brook
- Outfalls
- Catch Basins
- Manholes
- Stormline
- VT Significant Wetland
- Stream

Notes

Sources: Bing Aerial Photography (2012); Streams by ANR (2012); Munroe Brook Subwatersheds by ANR (Updated by TCE 2014); Drainage Areas by ANR (Updated by TCE 2014); MS4 Boundaries by ANR; BMPs by Horsley Witten Group & TCE (2014).
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**M32 - Drew Lane
Shelburne, VT**

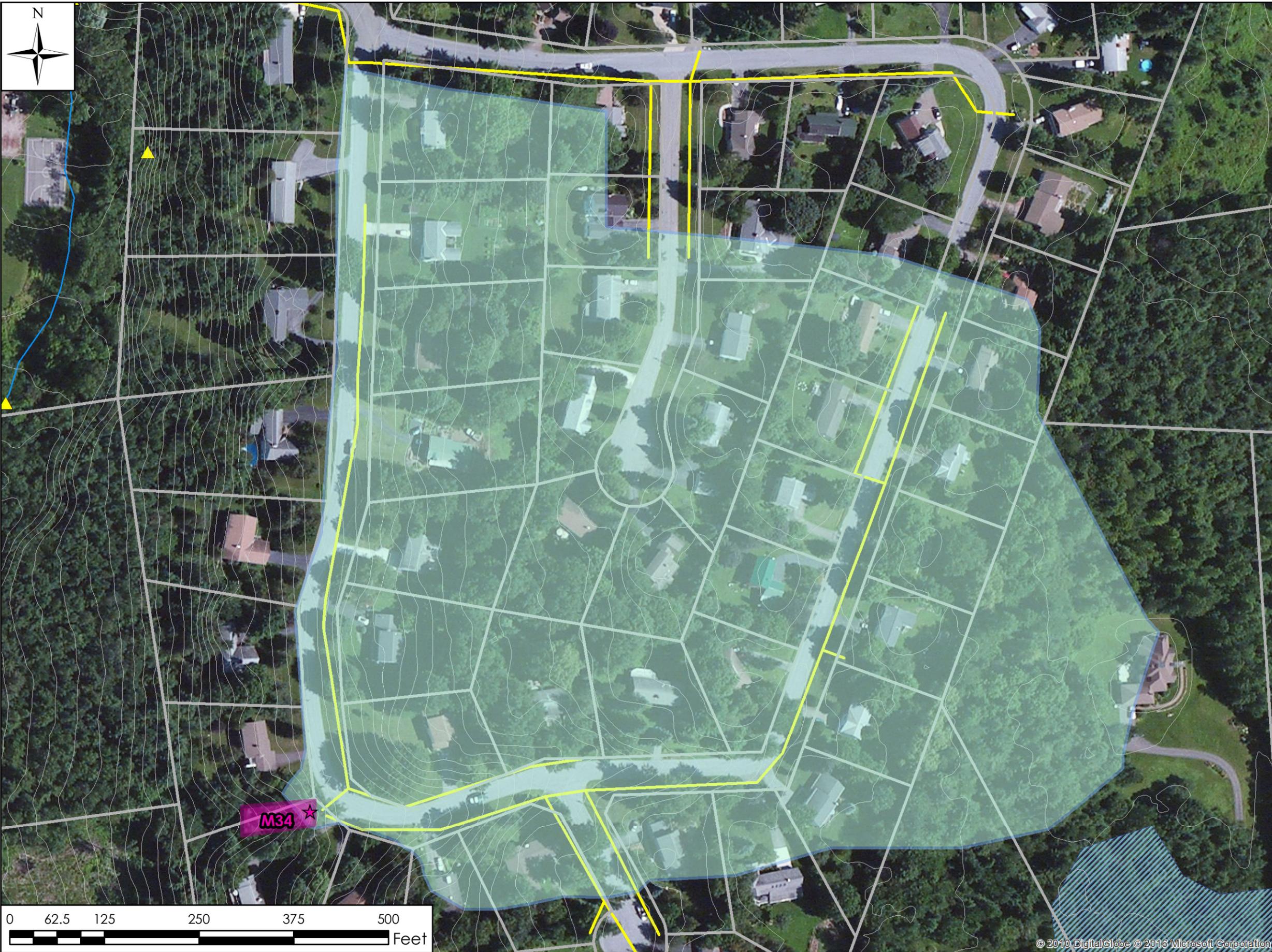
Project: 14-042
Prepared By: LMJ
12/03/2014
1 inch = 150 feet



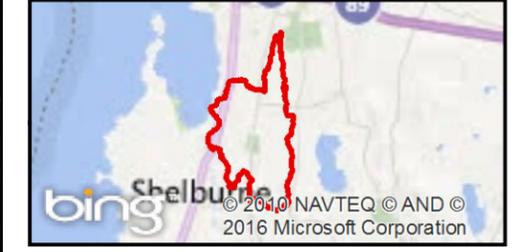
ID#: M34		
Name: Hullcrest South		
Permit #: N/A		
Concept Description: Construction of new BMP to capture existing unpermitted impervious		
Notes/Feasibility: Area can not feasibly be drained to an existing nearby practice. Proposed practice located in wooded area along a property line.		
GENERAL SITE INFORMATION	RETROFIT DETAILS	
Site Contact Info: Shelburne	Project Candidate: Tier II	
Ownership:	New or Retrofit BMP: New	
Land Use 1: Residential	Proposed Retrofit Practice: Pond	
Land Use 2:	Non-Structural Controls: N/A	
Existing BMP on site? No	Maintenance Burden: Moderate	
Is site a hotspot? No	Benefits: Storage: Yes Water Quality: Yes Recharge: No Repair: No Other: N/A	Conflicts: Soils: No Access: Yes Land Use: No Utilities: No High WT: Unknown Wetlands: No Demo: No Other: N/A
Soils: D		
SIZING INFORMATION		
Drainage Area (ac): 20.60		
Impervious Area (ac): 4.30		
Practice Area Available(ft²): 3400		
Existing Head Available? 3-5' Est.		

Date Assessed: 10/29/2014

Assessed by: AGM/LMJ



Project Location



Legend

- Munroe Brook Watershed
- Proposed BMP
- Practice Area
- BMP Drainage Area
- Contours (2')
- Tax Parcel Boundary
- Munroe Brook
- Outfalls
- Catch Basins
- Manholes
- Stormline
- VT Significant Wetland
- Stream

Notes

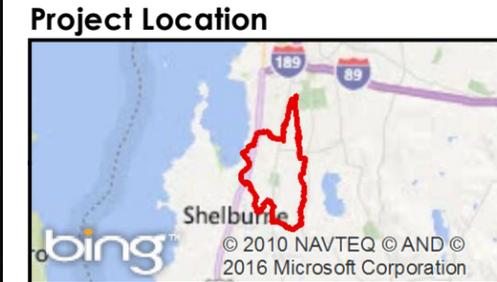
Sources: Bing Aerial Photography (2012); Streams by ANR (2012); Munroe Brook Subwatersheds by ANR (Updated by TCE 2014); Drainage Areas by ANR (Updated by TCE 2014); MS4 Boundaries by ANR; BMPs by Horsley Witten Group & TCE (2014).
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M34 - Hullcrest South
Shelburne, VT
Project: 14-042
Prepared By: ALD
09/23/2016
1 inch = 125 feet

ID#: M35				
Name: Morse Drive Neighborhood				
Permit #: N/A				
<p>Concept Description: The existing drainage system for the proposed practice DA daylights to a single discharge adjacent to a recently constructed home. There appears to be ample area for a pond BMP at this location with good vertical relief for discharge from the practice.</p>				
<p>Notes/Feasibility: Strong candidate site due to presence of existing network of ditches, culverts, and drain piping directing the majority of runoff to single point.</p>				
GENERAL SITE INFORMATION		RETROFIT DETAILS		
Site Contact Info: Shelburne		Project Candidate: Tier I		
Ownership:		New or Retrofit BMP: New		
Land Use 1: Residential		Proposed Retrofit Practice: Pond		
Land Use 2:		Non-Structural Controls: No		
Existing BMP on site? No		Maintenance Burden: Moderate		
Is site a hotspot? No		<table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top;"> <p>Benefits: Storage: Yes Water Quality: Yes Recharge: No</p> </td> <td style="vertical-align: top;"> <p>Conflicts: Soils: No Access: No Land Use: Utilities: No High WT: Unknown Wetlands: No Demo: No Other: N/A</p> </td> </tr> </table>	<p>Benefits: Storage: Yes Water Quality: Yes Recharge: No</p>	<p>Conflicts: Soils: No Access: No Land Use: Utilities: No High WT: Unknown Wetlands: No Demo: No Other: N/A</p>
<p>Benefits: Storage: Yes Water Quality: Yes Recharge: No</p>	<p>Conflicts: Soils: No Access: No Land Use: Utilities: No High WT: Unknown Wetlands: No Demo: No Other: N/A</p>			
Soils: C				
SIZING INFORMATION				
Drainage Area (ac): 23.20				
Impervious Area (ac): 3.89				
Practice Area Available(ft²): 4500				
Existing Head Available? >10'				
Other: N/A				

Date Assessed: 10/30/2014

Assessed by: AGM/LMJ



- Legend**
- Munroe Brook Watershed
 - ★ Proposed BMP
 - Practice Area
 - BMP Drainage Area
 - Contours (2')
 - Tax Parcel Boundary
 - Munroe Brook
 - ▲ Outfalls
 - Catch Basins
 - Manholes
 - Stormline
 - VT Significant Wetland
 - Stream

Notes

Sources: Bing Aerial Photography (2012); Streams by ANR (2012); Munroe Brook Subwatersheds by ANR (Updated by TCE 2014); Drainage Areas by ANR (Updated by TCE 2014); MS4 Boundaries by ANR; BMPs by Horsley Witten Group & TCE (2014).

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**M35 - Morse Drive
Shelburne, VT**
Project: 14-042
Prepared By: ALD
09/14/2016
1 inch = 200 feet